

Morton (S. G.)

BRIEF REMARKS
ON THE
DIVERSITIES OF THE HUMAN SPECIES,
AND ON SOME KINDRED SUBJECTS.

BEING AN
INTRODUCTORY LECTURE
DELIVERED BEFORE THE CLASS OF
PENNSYLVANIA MEDICAL COLLEGE,
IN PHILADELPHIA,
NOVEMBER 1, 1842.

BY SAMUEL GEORGE MORTON, M.D.
Professor of Anatomy and Physiology in that Institution.

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"The noblest study of mankind is Man."  
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CORRESPONDENCE.

Philadelphia, Nov. 6th, 1842.

DEAR SIR,—At a meeting of the Students of Pennsylvania Medical College, held in the College buildings, James F. X. McCloskey in the chair, the undersigned were appointed a Committee on behalf of the Class to request a copy of your Introductory Lecture for publication. In performing this pleasing duty, the Committee would respectfully request that the wishes of their fellow students be complied with, and beg leave to add, on their own part, the sincere desire they feel to witness the publication of your highly eloquent and appropriate address. Should it meet with your views, we sincerely hope you will transmit a copy for publication.

We are, dear Sir,

Your sincere friends and pupils,

D. W. C. B. CALDWELL, of Virginia.

J. H. B. McCLELLAN, Philadelphia.

H. S. MAYER, Pennsylvania.

E. R. MAYER, Philadelphia.

J. L. THOMPSON, Arkansas.

J. F. X. McCLOSKEY, Philadelphia.

Philadelphia, Nov. 10th, 1842.

GENTLEMEN,—Your obliging note of the 8th inst. is before me; and in reply I have only to say that I will most cheerfully furnish you with a copy of my Introductory Lecture for publication. I must, however, solicit the indulgence of a little delay, in consequence of many and pressing engagements.

I remain, gentlemen, with great regard,

Yours very faithfully,

SAMUEL GEORGE MORTON.

To Messrs. D. W. C. B. Caldwell, H. S. Mayer, E. R. Mayer, J. H. B. McClellan, J. L. Thompson, J. F. X. McCloskey, Committee.

INTRODUCTORY LECTURE.

GENTLEMEN,—“Time rolls his ceaseless course”—and thus, after the lapse of a few short months, we have again assembled to render our willing homage at the shrine of science. We have resolved to search into the arcana of our adopted profession ; to qualify ourselves to minister to “the many ills that flesh is heir to ;” and to exalt ourselves in that profession which was honored, in antiquity, with the guardianship of a god.

Ours is essentially a science of facts. In Anatomy little should be taken for granted that cannot be made manifest to observation; while, in Physiology, we are not called upon to believe any thing that does not follow as an obvious and reasonable result of demonstrable facts. Like the Geographer who goes forth to study the seas, the rivers and the mountains of the earth, so do we search into the varied and multiform tissues of the human body,—so wisely constructed, so harmoniously blended, and so mutely eloquent of the hand that made them.

My province is to teach the structure and functions of the human body ; that inimitable contrivance which we are assured, on the strongest testimony, was created in the image of its Maker. To comprehend disease we must first become familiar with that fabric which is subject to its influences ; we must study man in all the phases of his developement, from childhood to senility ; and we must acquaint ourselves with those varied circumstances of climate and locality which act on the springs of life, and modify their numberless functions.

Man, regarded in his general character, is the same in every zone ; he possesses the same general conformation, and notwithstanding some striking diversities of organization, the whole human family is to be regarded as a single

species. Yet, notwithstanding this approximation of mankind in essential and specific characteristics, I firmly believe that they were originally, or, in other words, before their dispersion into different latitudes, endowed with those varied traits of mind and body which alone could adapt them to their various allotments on the face of the earth. The more I have reflected on these diversities, the more I am confirmed in the conclusion, that they have not resulted from physical causes acting on constitutions originally the same, but that, on the contrary, there has been a primeval difference among men; not an accidental occurrence, but a part of that all-pervading design which has adapted man, in common with animals and plants, to those diverse conditions which form a necessary part of the economy of creation. Some intelligent minds, influenced more, perhaps, by feeling than by reflection, are unwilling to admit these differences among the several races of men; regarding them as incompatible with the equal wisdom and justice of Providence. Yet, on the other hand, it requires but little observation to convince oneself that these very differences form a universal, and no doubt essential feature in the social organization of our species. In the same family, for example, some individuals are precocious of intelligence from infancy itself, while others are imbecile from their very birth. In the one the mind develops itself in defiance of every obstacle; while in the other, care and culture are unavailing, and the intellect, if it deserves that name, remains in hopeless torpor till the end of life. How numberless are the gradations between these two extremes! Nor are these diversities confined to the physical and intellectual man; they are also conspicuous in his moral character, and pervade, in fact, every attribute of his existence. What is undeniable on the small scale, is not less true of the great; and although we may not perceive the fitness of things, this is no proof of the absence of wisdom in their adaptation.

The inspired historian has depicted the moral and physical beauty of our first parents in the gardens of Paradise, among the vallies of Mesopotamia. But temptation and sorrow soon blighted this primeval happiness ; the earth became filled with iniquity, and, by a universal calamity, the race of man, excepting a single family, was swept from the face of creation. Is it to be supposed that this family, which had been preserved from the common fate of humanity by a series of divine interpositions, would be sent forth on the wide world to struggle with the vicissitudes of *chance*? Is it not more probable that the same Infinite power that conducted them unharmed through the Deluge itself, would adapt them, before their dispersion, to those varied physical circumstances with which they were henceforward to contend? The strongest moral contrasts are coeval with the descent of mankind from the ark;* and we may reasonably infer that equally strong physical diversities were then established, constituting what are called in modern language, the *Races of Men*. Now, as these views form a legitimate and philosophical department of Physiological inquiry, let us pause and devote a few moments to their consideration.

In the first place, then, we may remark, that if the black complexion was the mere consequence of the action of the sun's rays in a hot climate, the Indians of our own continent, who inhabit the torrid zone, ought to be as dark-skinned as the inter-tropical Africans; which is very far from being the fact, for these American tribes are no darker than others who live on the shores of the Rio de la Plata, in the cold region of Patagonia. Again, if climate caused the peculiar texture of the hair in the African, a similar temperature in the same latitudes of America, ought to produce an analogous result in at least some portion of the indigenous population ; but the hair of the Indian, in all his localities, is long and lank, like that of the Mongolian : nor, on

* See Genesis, Chap. ix., 25, 26, 27, and chap. lxix., 1 to 27.

the other hand, does there appear to be the smallest tendency in any American climate to change the hair of the Negro; for we have the experience of three centuries in the West India Islands, in disproof of any such mutation.

If the African derives his complexion from the causes to which we have adverted, how does it happen that he becomes no fairer in a colder climate? Real Negroes constitute the indigenous population of Van Diemen's Land, which is nearly as cold as Ireland; and yet these very people are among the most strongly marked tribes of the African race. In many islands of the Indian Archipelago, the Nigritos, a race of Negroes of small stature, inhabit the hill-country, and the Malays the low-lands nearer the coast; and yet the Malay, under these circumstances, does not approximate to the Negro in any one of his physical characteristics.

So also the Dutch inhabitants of the Cape of Good Hope, who have lived for three centuries among the Hottentots, have preserved their natural traits unaltered; and this remark is also true of the Arabs who have lived during many generations among the Negroes in the heart of Africa, yet have lost none of the distinctive features of their race. Analogous examples might be multiplied to a great extent; but these may suffice the purpose of present illustration.

That climate has a certain and obvious effect on the human body, I most certainly admit; and, taking the skin for an illustration, we all know the effect of the sun's rays in producing a darker complexion, as seen in our own latitudes, and which is more strikingly manifest in those Caucasian or white nations who inhabit inter-tropical regions. They become of a dark brown complexion, not unfrequently as sable as mulattoes; but the children of such parents, if protected from the sun's rays, preserve the complexion which is characteristic of their progenitors, as in the instance of the Arabs to whom I have already adverted. But, with regard to the permanence of those organic characters which mark the different races of men, a conclusive source

of evidence has within a few years been disclosed to us in the monuments of Egypt. These venerable and truly wonderful remains of human ingenuity, embrace numberless legends, of which the knowledge of hieroglyphic literature has established not only the meaning, but the dates themselves; and by their evidence we discover the interesting fact, that the several races of men were as perfectly distinct in Egypt upwards of three thousand five hundred years ago as they are now. The white man and the Negro are there depicted, side by side, with the same physical characteristics which are now familiar to our daily observation. This vast period of thirty-five centuries, has made no appreciable change in either; and as less than seven hundred years could have intervened between the positive existence of these distinctions and the epoch of the Deluge according to the Hebrew chronology, we come to the unavoidable conclusion, as already stated, that these diversities of organization were coeval with the dispersion of our species. Let me repeat, therefore, my admonition, that we may not hastily attribute to mere chance those singular phenomena which bear the impress of obvious and original design.

Some minds would be perhaps equally disposed to attribute the diversity of languages also to accident, were it not for the positive evidence to the contrary, which is preserved in the inspired records; proving that in this, as in every other instance, whatever was requisite for the protection, variation, and perpetuity of the human race, required but the fiat of Omnipotence, and it was done.

The negro presents us, moreover, with a remarkable example of the adaptation of constitution to climate. Thus, there are vast tracts on both the eastern and western coasts of inter-tropical Africa, in which the European constitution at once becomes the victim of enervating and destroying fevers; and although it may, for a time, resist the fatal effect of these subtle influences, it sooner or later becomes a prey to them. No precautions can prevent them; and no manner of life accustoms an exotic constitution to con-

tend with its unseen but indomitable enemy. In these very climates, in the midst of these lethal exhalations, in this foul and poisoned atmosphere, the negro reaches the acme of his physical nature, and scorns those precautionary restraints which are necessary to the European.

This remark applies to the negro not only in his native African regions, to which we presume his constitution is essentially assimilated, but also in exotic climates; for I believe the fact has been satisfactorily proved, that he is much less subject than the white man to the yellow fever of our own country, and also to those destroying epidemics which infest the rice plantations and other marshy districts of the southern states.

Yet, on the other hand, the native inhabitants of a district of country are liable to diseases from which strangers are exempt, owing to a seemingly primitive difference of constitution which appears to belong to peculiar developments of the physical man. For example, in or about the year 1764, an inflammatory fever broke out among the Indian population of Nantucket and Martha's Vineyard, and was wholly confined to individuals of that race. The whole number of Indians in Nantucket was 340; of these, 258 took the distemper, and only thirty-six recovered. In Martha's Vineyard, it attacked every individual of those Indian families in which it made its appearance, being fatal in nearly all cases. Now mark another striking fact: not a single white person took the disease; and all those individuals who were of a mixed Indian and European origin, although they took the disease, recovered to a man!*

* See Lawrence's Lectures on Zoology, &c. I commend this work, which has been republished in Salem, Massachusetts, to your attentive perusal, as replete with instructive facts, to which I have resorted on the present and all other occasions when engaged in inquiries into the Natural History of Man. The more elaborate work of Dr. Prichard, of Bristol, England, will amply reward an attentive perusal, inasmuch as it embodies the most extended series of facts in Anthropology to be found in our language. This invaluable work has not been reprinted in this country, but can be obtained from our larger libraries.

Do not these and similar facts point to an original adaptation of the physical man to the local position he was ordained to inhabit? I apprehend that without such adaptation, the patriarchal germs of our species would have been utterly destroyed in the effort to contend with those pestilential influences which appear to be inherent to certain localities on the surface of our earth.

I have chiefly adverted to the negro in the preceding remarks, because his physical characteristics contrast more strongly with our own than those of the people of the other races; yet the same remarks are, on the general principle, applicable to any of the permanent varieties of mankind, as a moment's reflection will prove.

With these few facts in illustration of the permanent nature of the human complexion, let us next advert to stature. Mankind have in different ages given credit to fables of the exaggerated kind in reference to giants and dwarfs; yet, although instances occasionally occur of remarkable examples of both, there is no evidence on record of a *nation* of either.

The exceptions to the ordinary stature of our species are so few, that they merely serve to confirm the general law which regulates so important a point of our physical nature; and the reputed bones of gigantic men of a former age, have in every instance, when submitted to scientific inspection, proved to have belonged to the mastodon, the elephant and other large quadrupeds, whose remains, in a fossil state, are more or less abundant in various parts of the world.

The sacred writings, it is true, tell us that "there were *giants* in those days;" but it does not say that there was a community of giants; and the same remark holds good with reference to all subsequent time.

If we have isolated examples of men of gigantic stature in all ages, we also have incontestible evidence as to the general rule in remote epochs, in the embalmed bodies of the ancient Egyptians, which yet exist in vast numbers in

their interminable catacombs. These skeletons, of which I have examined a number, are rather below than above the ordinary stature, and in no other respect differ from the Caucasian nations of our own time, although, were we to judge of this people only by their stupendous monuments, we might suppose them to have been giants indeed. We have often heard and read of the remains of giants in our own country, supposed to be the relics of aboriginal tribes which are now extinct. These again, are mere deceptions arising out of an ignorance of human anatomy; for I can unhesitatingly declare, that of the many bones which have been sent me from the mounds and caves of the West, not one has indicated an individual of extraordinary stature. The Patagonians of South America are a very tall people, but not of gigantic proportions; and on reading the discrepant accounts which different travelers have given us in relation to them, I have come to the conclusion, that on important interviews with stragglers, they select their tallest men in order to make a favourable impression by the force of contrast,—a piece of diplomacy that would naturally suggest itself to untutored minds. While in the temperate and tropical countries the stature of man differs but little, even in the different races, from a certain average medium, we find the inhabitants nearest the polar regions, both north and south, to be manifestly stunted by their inhospitable climate, as evidenced in the Eskimaux and people of Terra del Fuego.

These facts lead to a few remarks in relation to what have been called *Pigmy races*, or those whose stature is asserted not to have exceeded that of children. Such of you as have resided in our western states, have no doubt heard and read of the so-called Pigmies of the valley of the Mississippi; and feeling much interest on the subject, I solicited Dr. Troost, of Nashville, Tennessee, to send me a skeleton from one of the reputed Pigmy-graves of White county, in that state. He most obligingly complied with my request; but the first glance at the remains of this

skeleton, showed me that it had belonged to a very juvenile subject. For example, many of the deciduous, or first teeth remain, and most of the permanent set are yet confined within the maxillary bones; while the long bones being small, and separated by epiphyses, give additional evidence that this individual was a mere child, which had not passed its eighth year; and the conclusion is unavoidable, that these so called Pigmyes were children, who, for reasons not readily explained, but which actuate some religious communities of our own time, were buried apart from the adult people of their tribe.

We have all observed humiliating examples of the approximation of man to the monkey tribe; and this fact has led some men, and even some philosophers, to contend for the gradual transition of the one into the other. Such was the avowed and published opinion of the eccentric Lord Monboddo, who even supposes that man himself was originally embellished with a tail; and so strongly did he insist on this point, that a wag facetiously remarked that his lordship judged of others by himself.

It is true that idiocy reduces man to a defect of intelligence inferior to that which is possessed by the brute; but the comparison is wholly unjust, inasmuch as man, in this instance, is seen in the last stage of human degradation owing to the presence of disease. I have said the last stage of human degradation, but I must correct myself; for the last, the lowest and most humiliating condition of man, is that in which he voluntarily, and not by any dispensation of Providence, abjures his own manhood, destroys his own mind, corrupts his own morals and blights his own fireside, by the all-consuming sin of habitual drunkenness.

Let us now, in the order proposed by Mr. Lawrence, briefly consider those characteristics of man which prove that he stands wholly isolated from every class of the inferior animals,—a being of nobler mould and higher aim.

The erect posture is equally the attribute of every grade of humanity, for even the most savage tribes constitute no exception to the rule ; and had any real exceptions ever existed, history or tradition would have preserved some evidence of them, which, however, is not the case; for I leave out of the question a few isolated facts which travellers have remarked of the people of Australia. Again, the whole conformation of man is adapted to this position, as seen in the structure of the pelvis, the lower extremities, and the muscular and other apparatus by which these are governed.

Man is also remarkable for the possession of two hands, and these constructed with a degree of perfection, and adapted to manifold purposes far surpassing any analogous structure in the inferior animals. It is true that monkeys have hands, and they have even been called four-handed animals. But how does this hand compare to that of man? The principal part of the structure, the thumb, is slender, short and weak, even in those examples which most nearly approximate to man ; and the whole apparatus is devoid of those multitudinous uses which, in man, adapt the hand to the mind, and the mind to the hand.

The large proportion which the cranium bears to the face in man, is very remarkable, and has even been assumed as a criterion of the relative intelligence of the different races. It is true that these proportions differ in whole nations ; and it is an incontestible fact, that the most intellectual nations have the largest and most beautifully formed heads. That this rule has obtained since the earliest times, is proved by the remains of the classic sculpture of Egypt and of Greece, as well as by the every day facts which result from our own observation. Yet here, again, remarkable exceptions occur, which are not, however, sufficiently numerous to invalidate the rule.

My observations, though as yet made on a comparatively limited scale, tend to the inference that the brain in the five

races of men,—Caucasian, Mongolian, Malay, Aboriginal American and Negro,—is successively smaller in each ; for in the first it averages upwards of ninety cubic inches, in the last about eighty-five. I moreover notice the singular fact, that the brain is smaller in certain inter-tropical nations than in other cognate people who inhabit either farther north or farther south. Examples may be adduced in the Peruvian Indians of our own continent, in the Austral-Egyptians in Africa, in the southern Arabs and Hindoos, and in the Negro tribes of the Indian Archipelago.

The only animal, if I recollect rightly, which possesses a brain absolutely larger than that of man, is the elephant ; for among most of the larger quadrupeds, including the Rhinoceros and Hippopotamus, the brain is of singularly small size. But a more satisfactory mode of investigation is that which compares the proportion which the mass of the brain bears to the entire body ; and a series of experiments early led to the conclusion that the human brain takes precedence of all others. Such is the general rule, but it is subject to some striking exceptions ; for it is found that five species of monkeys ; the dolphin ; and three kinds of birds—the sparrow, canary, and common fowl, have, in this respect, the advantage of the lord of creation himself ; whose intellectual superiority cannot, therefore, be derived from an excess in the *bulk* of the cerebral organ.

And this leads me to make a very few remarks on the modern science of Phrenology, which, in its proper interpretation, treats of faculties of the human mind, and of the organs by means of which they manifest themselves. It further teaches us that the brain is the seat of the mind, and that it is a congeries of organs, each of which performs its own separate and peculiar function. These propositions appear to me to be physiological truths ; but I allude to them on this occasion merely to put you on your guard against adopting too hastily those minute details of the lo-

calities and functions of supposed organs, which have of late found so many and such zealous advocates. For while it is difficult to suppose that the brain, with all its varied and beautiful parts, acts throughout with equal impulse on every moral or intellectual emotion, let us be cautious how we attempt to localize organs which are beyond our sight and reach, and of which the exact position can only be ascertained by numberless comparisons, and these made without reference to the preconceived opinions of other men, no matter how highly we may respect their love of truth and accuracy.

Let us next glance at man as the inhabitant of every climate, with the power of subsisting on every species of aliment. We find him not only living, but even flourishing and multiplying in every part of the known world, from the torrid regions beneath the equator, to the coldest climes in the extreme north. Thus, the Eskimaux and Greenlander live beyond 70° of north latitude, wherein mercury absolutely freezes.

The power which man possesses of enduring cold appears yet more remarkable, when we consider the degree of heat which he can also sustain; for whole tribes and nations in the inter-tropical regions, live in an atmosphere which is frequently heated to more than 100° of Fahrenheit, and this for days and weeks together; while the thermometer occasionally rises much above that point.

Since, then, observes Mr. Lawrence, the human frame seems designed, as it certainly is, in fact, to bear every variety of climate, it follows that man must be omnivorous, or capable of deriving his nourishment from every kind of food.

If animal diet was essential to the human economy, China and India, now the most thickly peopled portions of the globe, would of necessity be very sparsely inhabited. These nations, as is well known, live almost exclusively on rice; and yet they enjoy remarkably uniform health, are

capable of much fatigue, and live to a good age. Some savage tribes of our own country live for months of the year on roots alone; yet these unfortunate people have all the physical attributes of the cognate tribes. Nay, more: the philosophic traveller, Von Humboldt, met with a people called Ottomacs, living on the shores of the Orinoco, who, he assures us, are compelled by the scantiness of food to live for several weeks and even months of the year chiefly on an unctuous clay which contains some nutritive properties, and serves the purposes of life. This seems for a moment, beyond our credence; yet upon how little aliment the human body can be nourished and sustained, even amid the greatest privations, has been often brought to the test of painful experiment in some of those polar expeditions, which have formed a remarkable feature in the history of the present century. Men have been compelled, in the extremity of famine, to eat their very shoes, and have found in them sufficient sustenance to sustain life, and toil and fatigue, for many days together.

If we next regard the most northern tribes of both continents, we find them living exclusively on animal food, and this in a most gluttonous quantity, and in the most disgusting condition. The Eskimaux and the Kamschatkans, the Ostiaks, Samöides and other polar nations, eat their food raw or half cooked, with equal indifference. And of what does this food consist? The flesh of seals, the blubber of whales, and the visceral parts of various marine animals, and often in a state of absolute decomposition. Yet this diet is not only suited to their palates but adapted to their digestion; for on it they thrive well, grow fat, enjoy life, and are capable of undergoing a degree of fatigue and privation which to us would be appalling indeed.

Further to the south, yet still in a comparatively inhospitable latitude, the Norwegians are seen to grind the bark of certain trees for the purpose of mixing it with their scanty allowance of oat-meal or barley; and yet these very

people are scarcely surpassed in health, strength or longevity, by any other inhabitants of Europe.

In further proof of the omnivorous nature of man, we have only to regard the civilised communities of which we ourselves form a part. Look at the multiplied varieties of animal and vegetable food which are every day exhibited in our markets, and displayed upon our tables. All nature is taxed to provide this infinite diversity of aliments. The earth, the sea, the air,—each is ransacked to contribute something to this grand and necessitous requisition of our nature. Then look again at the multifarious culinary operations to which these various articles of diet are subjected, and we are compelled to admit that man is omnivorous in the broadest sense of the word. The truth is, he must be fed. He rises in the morning, whether from his hard and unyielding bed, or from his downy couch, and his first impulse is that of hunger. Whether he works or lives in idleness; whether he fights or philosophises; whether he tills the earth, or writes romances, he must, he *MUST* be fed.

Hunger! Thou art in truth a god, to whom
Men render homage. Daily dost thou drive
Thy famished legions forth, to toil, or beg,
Or rob. Who dares contend with thee? Not one.
Life is a strife for bread.

And when we reflect that eight hundred millions of human beings feel this daily necessity for food, a necessity which cannot be postponed nor compromised by any crafty subterfuges, how stupendous does that provision appear, which is adequate to the wants of so vast a family!

But although man, as we have observed, is capable of living on any or all kinds of food; although his aliments are, in some regions, necessarily limited to a very few articles, and these exclusively of the vegetable or of the ani-

mal kingdom,—yet his mind and body are most perfectly developed when his diet is of a duly mixed character, and adapted to those ever-varying conditions of repose and activity to which he is by nature subject.

The lower animals have their prescribed localities, their native haunts, their own essential range of climate. What would be the condition of the polar bear if placed under the equator, or the lion if removed to the perpetual snows of the arctic circle? Each would become paralyzed and powerless, and sink at once into imbecility and death. Such, also, would be the fate of every other animal, if removed from its native haunts and influences, and placed in others which are adverse to its nature. But what is the latitude essential to man? What are the limits of his range? He has no limits. Spreading his sails on every sea, he explores every region, he pitches his tent in every clime, he braves every variety of physical circumstance. Led by the incentives of commerce, lured by the hope of gain, or seduced by the love of glory, he traverses the burning deserts of Africa, or pursues the sea-monsters in the icy regions of the pole. He hunts the tiger for pastime on the plains of India, and the buffalo for food on the prairies of the far west. He grapples with the ocean tempest, and plays with the winds of Heaven; and he even contends with the grim messenger of death amidst the fumes of plague and pestilence, and turns aside the shaft that was aimed at the bosom of his fellow man.

Connected with this department of our subject, let us next advert briefly to the immense preponderance of the moral and intellectual faculties in man; those godlike attributes which place him on the pinnacle of creation, and convince him, as he looks down on the herd of inferior animals, that there is, indeed, a gulf between him and them. It is not for me, in this place, to dwell on these deeply interesting considerations; yet when we consider them in connexion with the gift of speech, and note the beautiful and elaborate results of human thought,—the ideality of Homer,

the philosophy of Franklin,—the combination of clear perception and prompt action in the immortal Washington,—when we reflect on the mighty genius that could conceive the Pyramids and the Parthenon,—or last, not least, when we contemplate that spirit of benevolence which characterizes the mind of man, and behold it directed to the mitigation of human ills, the suppression of human wrongs, and the general welfare of the human species, are we not compelled to admit that MAN, with all his faults, with all his manifold and glaring imperfections, possesses within him a spark of that Diviner Essence, which, if cultivated and cherished, approximates in degree to Divinity itself? Yet as this question would involve a more extended discussion than our time will admit of, I can only glance at it in very general terms. In the first place, then, we are struck with the fact, that the northern portions of both hemispheres are much more favourable to mental development, than the corresponding southern latitudes; and that the inter-tropical regions, as Dr. Lakey has shown, may be included within the limits of this remarkable exception. In those regions of perpetual summer, wherein the mind luxuriates in indolence and sensuality, the depressing and continued heat tends to throw a languor over the human frame, alike unfavourable to mental culture and to physical activity. In vain we look, in these burning climes, for exalted manifestations of intellect, whether shown in mechanical ingenuity, in mathematical research, in philosophical inquiry, or in the more seductive themes of poesy and song. I must, of course, make exceptions for the peninsular regions of India and Arabia, which lying in the northern section of the torrid zone, present an approximation, though still remote, to the mightier genius of the people beyond the Tropic.

You may, perhaps, inquire respecting Egypt—the cradle of civilisation—the mother of the arts. But it is a curious fact, I might say, coincidence, that the line of the northern tropic passes a little to the south of the island of Philæ, (which was

the boundary between Egypt and Nubia,) thus placing the whole of the proper Egyptian territory within the limits of the north temperate zone. If we direct our attention yet further south to Ethiopia, we find, it is true, temples, tombs, and pyramids; but these, although more in number, are much less in magnitude than those mightier monuments which shadow the valley of the Nile from Philæ to the Delta. Again, Ethiopia was for ages a subject province or dependency of Egypt, and perhaps derived from the latter country, her arts, her language, and her religion. In the south temperate zone, notwithstanding the milder nature of the climate, and the seeming adaptation of the country, to the wants and the impulses of humanity, what do we behold? In New Holland, the lank, ferocious, and denuded savage, the feeble intelligence, the mere glimmer of the reasoning mind. In Africa, the wretched and brutalized Hottentot, yet more degraded, if possible, than the Australian himself, and constituting the lowest natural link in the scale of the rational creation. If, again, we turn our eyes to Terra del Fuego, the southern extreme of our own continent, we see another series of similar phenomena, all tending to prove that man in those regions is mentally and morally inferior to him of the inter-tropical latitudes; while both fall below the type of mind as seen in those happier climes which lie north of the tropic of cancer.

But while much is due to climate, even more is attributable to those primeval attributes of mind, which, for wise purposes, have given our race a decided and unquestionable superiority over all the nations of the earth. Was this not the case, the numberless hordes of the Mongolians of Asia, would long since have exterminated the Caucasian race from Europe; and the very religion which we profess, would ere now have been replaced by those unhallowed rites, and that multiform idolatry, which are justly abhorrent to christianized man. Was it not for this same mental superiority, these happy climes which we now inhabit would yet be possessed by the wild and untutored Indian,

and that soil which now rejoices the hearts of millions of freemen, would be yet overrun by lawless tribes of contending Barbarians. Thus it is that the white race has been able to plant and to sustain its colonies in every region of the habitable earth.

In Asia, in Africa, in America, in the torrid and in the frigid zones, have not all the other races of men yielded and given place to this one? In the Mongolian family civilization was early, its progress was slow, and its degree is fixed. What it has been for ages, it is now. But the Caucasian stock, as seen in the Egyptians, the Chaldeans, the Greeks, the Romans, in the various nations of southern Europe, and of later time in the Anglo-Saxon race to which we ourselves belong, has marched onwards from one degree of cultivation and refinement to another, which the other races have never approached, nor are likely, in the ordinary course of events, ever to realise.

I have ventured thus to bring these collateral views in bold relief before you, because, coming as you do from various and distant parts of our own and of foreign countries, I wish to impress upon you the importance of Anthropology—the natural history of man—as a study and recreation of your leisure hours. We all need that occasional relaxation which is derived from sources unconnected directly with our professional pursuits. Let us bestow a part, at least, of this leisure on those inquiries which tend to make us more familiar with the differences observable in the physical, moral and intellectual character of our species, remembering the just and beautiful sentiment of the poet:

“The noblest study of mankind is MAN.”

With these few, fugitive, and for the most part familiar illustrations of a highly important subject, I turn for a moment, and in conclusion, to another, in which we all feel, I trust, a common and engrossing interest.

No calling of which man is capable, gives more scope to honest ambition than our own; and perhaps it is not

assuming too much to say, that no profession does more good with less ostentation. It is true that a physician is not without the hope of professional reward for the toils and anxieties to which he is daily subjected. But over and above all this, is he not habitually performing acts of practical benevolence, of which the world sees nothing, and which may be said to be known only in Heaven! While thousands are devoted to song and dance and convivial joys, while others are wrapt in slumber, all unconscious of the griefs of humanity, while the streets are thronged with the busy hum of multitudes who are passing to and fro intent on business or pleasure,—during all this diversity of human occupations and impulses, where, where, I ask, is the Physician? He is in the silent chamber of the sick and miserable; he is found where the midnight lamp burns feebly, an emblem of that life which is passing away beneath the pressure of disease and pain. He stands by the couch of the afflicted; he administers the soothing cup and mitigating draught to those who cry aloud for help. He interposes, as it were, between life and death; and, aided by the providence of God, he heals the sick; he gives sight to the blind; he makes the lame to walk, and rescues his fellow man from the grasp of death and from the yawning grave.

Is there not something sacred in that vocation which can thus fly to the rescue of oppressed and expiring nature? which can mitigate the wasting paroxysms of disease and pain, and which soothes the last sad moments of existence, until the eye has ceased to regard the things of earth? Is that not an ennobling trust which admits man to the confiding revelations of agonised humanity? Which bares to his view the bleeding heart, the secret sorrow, the consuming grief, of which the busy world knows nothing? And which, in the stronger language of antiquity, permits him to mingle, without distrust, among the household gods of his fellow men?

Our profession, gentlemen, is not the study of a few

short years; for these can only lead us to the threshold, as it were, of that temple whose light is our guide, and whose honours are our aim; but it requires faithful attention, and assiduous devotion from day to day, from month to month, from year to year, as long as life continues; and yet, after all that we see, after all that we learn, we may have to acknowledge, with the humility of true philosophy, that much that we had sought has been veiled from our view—much that we had desired has never been realised. But while our art is thus beset with disappointments, it is not without its certainties, which abundantly requite the toil of those who steadfastly devote themselves to its manifold and engrossing requisitions.

In the year 1813, while I was yet a child, the solemn toll of the church bell announced that a spirit had been called to its long home, and truly the mourners went about the streets. Men met at their accustomed resorts, and spoke with mingled grief and admiration of one who was then no more. The sick man sorrowed in his sleepless bed, and the voice of lamentation arose to heaven from the chambers of the afflicted. He who had been to them a good Samaritan—a ministering angel—blending the profoundest knowledge of his profession with that confiding cheerfulness which grows out of the practice of every Christian virtue—he, alas! was dead. Who was he whose death thus cast the mantle of gloom over a whole community, and whose unsullied fame is the pride and glory of a nation? That man was DR. BENJAMIN RUSH.

Clarum et venerabile nomen.

Despising the seductive paths of empiricism, he paid no homage at the shrine of Mammon. He honored that profession which, to the latest posterity, will render back honour to him. Emulate, then, this illustrious example of a Physician and a Man; and by so doing, rest assured that you will consecrate your names in the Temple of Science, and on the Tablets of Immortality.